

CONTENTS.

A

Address to Subscribers,	1, 41, 78, 207
Atlantic Steam Navigation,	207, 266, 267
Apparatus for boring Wells,	27
Artificial Hydraulic Mortars and Cements,	27
Auburn and Rochester Railroad—Report of	92
Address of George Peabody—Extract from	220
American Locomotives,	232
Anecdote of Steam Navigation,	263
Alvernon, P—Improvement in attaching cars in a train,	266
Abstract of Papers read at the Insitution of Civil Engineers,	283, 286, 316, 391
Application of Steam,	288
Aycrigg, Lieut. Col. B.—Communication from	290

B

Beet Sugar,	15
Bennet's Boiler,	37
Brick and Cement Beams,	61
Buck's Chairs for Parallel Rails,	95
Baldwin, W—Manufacturer of Locomotive Steam Engines,	134
Blasting the White Limestone of Antrim coast,	229
Bridge of Cabzag,	232
Baltimore and Ohio Railroad,	264, 325

C

Cram's Pile Driving and Cutting Machine,	9
Communication from S. D.	11
Canal—Genesee Valley	15
Concrete—Notes on	17
Carburets of Hydrogen—New	25
Continuous bearing of Railways,	30
Communication from E. F. Johnson,	35
Curtis's Railway Chairs,	47
Civil Engineers—Minutes and Proceedings of	62, 260
Cast-Iron Girders—Experiments on	64
Crimea—Antiquities of	69
Central (Ga.) Railroad,	132
Copper for Steam Boilers,	180

Central Railroad,	207
Canal Enlargement,	263
Civil Engineers—Extract from a Report of	283
Clegg's Dry Gas Metre	238
Construction of Floating Bridge	290
Cast-Iron Bearers,	292
Cow killed by Baltimore Railroad Cars	296
Communication from Mr. G. A. Nicholls—Notice of	297
Cars—Eight-wheeled	297
Communication from R. M. Shoemaker,	303
Communication of L. O. Reynolds,	304
Communication from J. A. Roebling, Civil Engineer,	362

D

Description of Underpinning with Concrete	17
Dutch Terras of Basalts	28
De Pambour's Formula—Remarks on	74
Description of the first division of the Long Island Railroad, 176, 208,	243
Description of the French method of constructing Flat Roofs	287

E

Experiments on the strength of materials	62
Extract from the London Correspondence of the N. Y. Courier,	101
English and American Steam Engines	122
Extract of Letter from Crawfordville,	167
Easton Railroad—Opening of	104
Embankments from the Sea	196
Expansive action of Steam, &c.	290
Evaporation of water by Steam Boilers	316

F

Fifth Annual Report to Building Committee of the Girard College,	113
Flat Roof—Mode of Constructing	287
Floating Bridge—Construction of	290
First Russian Railroad,	350, 377

G

Galvanometer—Thermascopic,	21
Georgia Railroad,	131
Gaswork,	168
Genesee Valley Canal,	206
Great Bridge,	232
Gerstner—Chevalier Von,	297
Graham, Professor—Protection of Iron by Zinc,	310

H

Hiwassee Railroad,	40, 268
Hudson and Berkshire Railroad,	
Hall, Samuel, patent for Improvements on steam engines,	68

INDEX.

House painting—improvement in,	71
Huddart's, Capt., improvement in rope machinery,	285
Hayne, Robert Y., notice from,	626

I

Iron Steamboats,	17
Ice, method of breaking,	27
Inclined planes,	42
Improvements on canal and motive thereon,	27
Improvements in steam apparatus,	103
Improvements in water wheels,	287
Internal improvements,	130, 193
Iron steamboat on a new plan,	199
Important invention,	199
Instructions in civil engineering—literary and scientific course of Columbia College,	206
Improvements in mending turnpike and common roads,	320
Improvement in manufacturing fuel,	321
Improvements in book binding,	323
Inquiry into the practicability of Atlantic steam navigation,	369

J

James' River and Kanaway canal—resolutions respecting,	15
Juniatta—rise of,	46

K

Kites' patent safety beam,	202
Ketcham's patent for enabling locomotives to ascend inclined planes,	265
Kilsby Tunnel,	299

L

Long Island Railroad—Communication on,	11
Lewis—drawing and description of,	32
Levelling machine,	99
Lead mine in Davison County,	119
Liberal legislation,	132
Locomotive steam engines,	134
Lexington, Cincinnati, and Charleston Railroad,	224
Louisville, Cincinnati, and Charleston Railroad Co., Second annual report of,	270
Little Miami Railroad,	303
Land Surveyers calculator,	318
Letter copying machine,	325
Letter to the Governor of South Carolina,	383

M

Method of giving a Spheroidal figure to balls of lead,	30
Minutes and proceedings of the Institution of Civil Engineers,	62, 97, 127, 227
Magnetic Discoveries,	100
Mexican Gulf Railroad,	199, 260

N

Notes on Concrete,	27
New Railroad route between Easton and New-York,	45
New Invented Steam Engine,	70
North Carolina Manufactures,	79
New-York and Albany Railroad,	89, 156, 191, 200, 264, 268
Novel idea in Civil Engineering,	129
New Steam-boat law,	141
Nashville Railroad,	231
New Haven and Hartford Railroad,	328
New material to be applied to dwelling houses, to render them capable of resisting fire,	376
Number of Patents in France,	391

O

Our Great Railroad,	133
Opening of the Newcastle and Carlisle Railway,	295

P

Patent Safety Fuse,	6
Prussian Blue, Dyeing Cloth with,	23
Power of Traction of Locomotive Engines,	33
Patent process for preserving wood,	77
Progress of Internal Improvements,	130
Philadelphia and Reading Railroad,	168, 251
Pambour's Formula of Locomotive Engines.—Remarks on it by W. H. Talcott,	170
Power of Traction of Locomotive Engines,	233
Pistrucci, Signior, Striking up Medals, &c.,	315
Pin Making,	375
Probable duration of English Coal Beds,	390

R.

Removal of Raft in Sabine River,	18
Resolutions respecting the James River, and Kanaway Canal,	15
Report on Siliceous and Calcareous productions,	24
Return of the Steamers Great Western, and Sirius,	40
Rail Chairs, Curtis',	47
Report of Water Commissioners,	49
Report of the affairs and prospects of the Canton Company of Baltimore,	55
Railroad—Hudson and Berkshire,	59
Railroad—Plattsburgh and Chambersburgh,	72
Railroad—French,	72
Remarks on De Pambours' formula,	74, 240
Railroad—New York and Albany,	89, 156
Report of Albany and Rochester Railroad,	92
Railroad—Eastern,	104
Railroad—Philadelphia and Reading,	168
Railway Chairs,	97
Remarks on Sherwood's Magnetic discoveries,	106

Royal William Steam Ship,	120
Reading Railroad,	129
Railroad Contracts,	183
Railroad—Bridgeport,	134
Remarks on the velocity of Steam Vessels,	137
Report—first annual—of engineer in chief of the central railroad and Banking Company, of Georgia,	145, 171
Remarks on Pambours' formula of locomotive engines	170
Railroad—Baltimore and Ohio,	325
Railroad—to Pittsburgh,	327
Railroad—New Haven and Hartford,	328
Railroad—Cumberland Valley,	328
Railroad—Hudson and Berkshire,	329
Railroad—Hiwassee,	268
Railroad—Lexington, Cincinnati and Charleston,	224
Railroad—South Carolina,	230
Railroad—Nashville,	231
Railroad—Philadelphia and Reading	251
Railroad—Charleston and Georgetown,	296
Remarks on Steam Navigation, Explosions and Engineers,	253
Railroad speed, and the Mails,	264
Report—second annual—of the Louisville, Cincinnati, and Char- leston, Railroad Company,	266
Rope Machinery—improvement in,	285
Report—second annual—of Central Railroad and Banking Co.	304
Report of a survey of a route for the extension of the Western and Atlantic Railroad,	385
Raleigh and Gaston Railroad,	392
Railroads,	392

S

Sabine river, removal of obstructions in,	18
Steam expansion table,	31
Steamboat Despatch—Bennett's boilers,	37
Strength of materials—experiments on,	62
Steam Engines—Hall's Patent for improvement on,	68
Steam Engines—New invented,	71
Steam-boat accidents,	102
Sherwood's Magnetic Discoveries,	106
Specification of a patent for protecting articles made of Iron or Steel from oxidation,	116
Steam-ship Royal William,	120
Steam Engines—English and American,	122
Steam-boat Law,	141
Steaming on Canals,	166
Safety Beam—Kite's Patent,	202
South Carolina Railroad,	230
Steam Navigation—explosions, &c.,	252
Steam-ships of War,	262
Specification of Henry H. Mahun,	321
Specification of John McNeil,	320
Specification of William Hancock,	322

Second Report of the Commissioners appointed to consider and recommend a General System of Railways for Ireland,	868
Single Rail Railroad,	898

T

Transactions of the Institutions of Civil Engineers,	26
Traction—Power of	83
Thames Tunnel—Notice concerning	65
Traction—Power of	233
Treatise on Reservoir Locks,	361

V

Value of different kinds of Steam,	7
Velocity of Steam Vessels—Remarks	137

W

Water Commissioners—Report of	81, 108, 151
Wooden Pavements,	167
Wetumpka and Coosa Railroad	198
Western and Atlantic Railroad	217
Welland Canal,	238
Wilmington Road,	302

